SEQUENCE LISTING

<110> Phillips, David
Law, Debbie A.
Alaimo, Lisa N.

<120> Modulation of Integrin-mediated Signal Transduction

<130> 44481-5008-02-US

<140> US 09/801,089
<141> 2001-03-08

<150> US 08/734,607
<151> 1996-10-18

<150> US 60/005,567
<151> 1995-10-18

<160> 27

<170> PatentIn Ver. 2.1

<210> 1
<211> 23
<212> PRT
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<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<220>
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<222> (20)
<223> PHOSPHORYLATION

<220>
<223> Description of Artificial Sequence: Beta 1 subunit of integrin

<400> 1
Asp Thr Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val
1 5 10 15

Asn Pro Lys Tyr Glu Gly Lys
20

<210> 2
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 2

subunit of integrin

<220>
<221> MOD_RES
<222> (5)
<223> PHOSPHORYLATION

<400> 2
Asp Leu Arg Glu Tyr Arg Arg Phe Glu Lys Glu Lys Leu Ser Gln Trp
1 5 10 15

Asn Asn Asp Asn Pro Leu Phe Lys Ser Ala Thr
20 25

<210> 3
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 3 subunit of integrin

<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (20)
<223> PHOSPHORYLATION

<400> 3
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr
20

<210> 4
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 5 subunit of integrin

<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<220>

<221> MOD_RES
<222> (28)
<223> PHOSPHORYLATION

<400> 4
Glu Met Ala Ser Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr His Thr
1 5 10 15

Val Asp Phe Thr Phe Asn Lys Phe Asn Lys Ser Tyr Asn Gly Thr Val
20 25 30

Asp

<210> 5
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 6 subunit of integrin

<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (20)
<223> PHOSPHORYLATION

<400> 5
Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys
1 5 10 15

Asn Val Thr Tyr Lys His Arg Glu Lys Gln Lys Val Asp Leu Ser Thr
20 25 30

Asp Cys

<210> 6
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 6 subunit of integrin

<220>
<221> MOD_RES
<222> (8)

<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (20)
<223> PHOSPHORYLATION

<400> 6
Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys
1 5 10 15

Asn Val Thr Tyr Lys His Arg
20

<210> 7
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Beta 7 subunit of integrin

<220>
<221> MOD_RES
<222> (5)
<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (25)
<223> PHOSPHORYLATION

<400> 7
Asp Arg Arg Glu Tyr Ser Arg Phe Glu Lys Gln Gln Gln Gln Leu Asn
1 5 10 15

Trp Lys Gln Asp Ser Asn Pro Leu Tyr Lys Ser Ala Ile
20 25

<210> 8
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: ITAM signaling motif in integrin

<220>
<221> misc_feature
<222> (3)..(4)
<223> Xaa at positions 2 and 3 can be any amino acid; Xaa at position 4 is Leu or Ile.

<400> 8
Tyr Xaa Xaa Xaa
1

<210> 9
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence. Immune receptor activation motif

<220>
<221> misc_feature
<222> (2)..(16)
<223> Xaa at positions 4 and 16 is Leu or Ile; Xaa at positions 2, 3, 5-12, 14 and 15 can be any amino acid.

<400> 9
Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Xaa Xaa Xaa
1 5 10 15

B12

<210> 10
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 10
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr
20

<210> 11
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 11
Asp Thr Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val
1 5 10 15

Asn Pro Lys Tyr Glu Gly Lys

40

<210> 12
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 12
Glu Met Ala Ser Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr His Thr
1 5 10 15

Val Asp Phe Thr Phe Asn Lys Phe Asn Lys Ser Tyr Asn Gly Thr Val
20 25 30

Asp

B12

<210> 13
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 13
Glu Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys
1 5 10 15

Asn Val Thr Tyr Lys His Arg Glu Lys Gln Lys Val Asp Leu Ser Thr
20 25 30

Asp Cys

<210> 14
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 14
Asp Leu Arg Glu Tyr Arg Arg Phe Glu Lys Glu Lys Leu Ser Gln Trp
1 5 10 15

Asn Asn Asp Asn Pro Leu Phe Lys Ser Ala Thr

20 25

<210> 15
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Control peptide for signal protein binding studies

<400> 15
Asp Arg Arg Glu Tyr Ser Arg Phe Glu Lys Glu Gln Gln Gln Leu Asn
1 5 10 15

Trp Lys Gln Asp Ser Asn Pro Leu Tyr Lys Ser Ala Ile
20 25

<210> 16
<211> 47
<212> PRT
<213> Homo sapiens

B12

<220>
<223> GPIIIa Beta 3 subunit

<400> 16
Lys Leu Leu Leu Thr Thr His Asp Arg Lys Glu Phe Ala Lys Phe Glu
1 5 10 15

Glu Glu Arg Ala Arg Ala Lys Trp Asp Thr Ala Asn Asn Pro Leu Tyr
20 25 30

Lys Glu Ala Thr Ser Thr Phe Thr Asn Ile Thr Tyr Arg Gly Thr
35 40 45

<210> 17
<211> 58
<212> PRT
<213> Homo sapiens

<220>
<223> GPIIIa Beta 6 subunit

<400> 17
Lys Leu Leu Val Ser Phe His Asp Arg Lys Glu Val Ala Lys Phe Glu
1 5 10 15

Ala Glu Arg Ser Lys Ala Lys Trp Gln Thr Gly Thr Asn Pro Leu Tyr
20 25 30

Arg Gly Ser Thr Ser Thr Phe Lys Asn Val Thr Tyr Lys His Arg Glu
35 40 45

Lys Gln Lys Val Asp Leu Ser Thr Asp Cys
50 55

<210> 18
<211> 47
<212> PRT
<213> Homo sapiens

<220>
<223> GPIIIa Beta 1 subunit

<400> 18
Lys Leu Leu Met Leu Ile His Asp Arg Arg Glu Glu Ala Lys Glu Glu
1 5 10 15

Lys Gln Lys Met Asn Ala Lys Trp Asp Thr Gly Glu Asn Pro Ile Tyr
20 25 30

Lys Ser Ala Val Thr Thr Val Val Asn Pro Lys Tyr Glu Gly Lys
35 40 45

B12

<210> 19
<211> 57
<212> PRT
<213> Homo sapiens

<220>
<223> GPIIIa Beta 5 subunit

<400> 19
Lys Leu Leu Val Thr Ile His Asp Arg Arg Glu Phe Ala Lys Phe Gln
1 5 10 15

Ser Glu Arg Ser Arg Ala Arg Tyr Gln Met Ala Ser Asn Pro Leu Tyr
20 25 30

Arg Lys Pro Ile Ser Thr His Thr Val Asp Phe Thr Phe Asn Lys Phe
35 40 45

Asn Lys Ser Tyr Asn Gly Thr Val Asp
50 55

<210> 20
<211> 46
<212> PRT
<213> Homo sapiens

<220>
<223> GPIIIa Beta 3 subunit

<400> 20
Lys Ala Leu Thr His Leu Ser Asp Leu Arg Glu Tyr Arg Arg Phe Glu
1 5 10 15

Lys Glu Lys Leu Lys Ser Gln Trp Asn Asn Asp Asn Pro Leu Phe Lys
20 25 30

Ser Ala Thr Thr Thr Val Met Asn Pro Lys Phe Ala Glu Ser
35 40 45

<210> 21
<211> 52
<212> PRT
<213> Homo sapiens

<220>
<223> GPIIIa Beta 7 subunit

<400> 21
Arg Leu Ser Val Glu Ile Tyr Asp Arg Arg Glu Tyr Ser Arg Phe Glu
1 5 10 15

Lys Glu Gln Gln Gln Leu Asn Trp Lys Gln Asp Ser Asn Pro Leu Tyr
20 25 30

Lys Ser Ala Ile Thr Thr Thr Ile Asn Pro Arg Phe Gln Glu Ala Asp
35 40 45

Ser Pro Thr Leu
50

B12

<210> 22
<211> 52
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus sequence for human GPIIIa Beta subunits

<220>
<221> misc_feature
<222> (5)...(51)
<223> Xaa at positions 5, 17, 19, 20, 21, 23, 25-28, 34, 36, 37, 39-48, 50, 51 can be any amino acid.

<400> 22
Lys Leu Leu Val Xaa Ile His Asp Arg Arg Glu Phe Ala Lys Phe Glu
1 5 10 15

Xaa Glu Xaa Xaa Xaa Ala Xaa Trp Xaa Xaa Xaa Xaa Asn Pro Leu Tyr
20 25 30

Lys Xaa Ala Xaa Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45

Asn Xaa Xaa Tyr
50

<210> 23
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Proline-substituted form of Beta 3 subunit of integrin

<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (20)
<223> PHOSPHORYLATION

<400> 23
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Pro Thr Phe Thr
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr
20

B12

<210> 24
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Monophosphorylated form of Beta 3 subunit of integrin

<220>
<221> MOD_RES
<222> (20)
<223> PHOSPHORYLATION

<400> 24
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr
20

<210> 25
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Monophosphorylated form of Beta 3 subunit of
integrin

<220>
<221> MOD_RES
<222> (8)
<223> PHOSPHORYLATION

<400> 25
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr
20

B12

<210> 26
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Motif for
phosphotyrosine-binding domain

<400> 26
Asn Pro Leu Tyr
1

<210> 27
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
sequence for phosphotyrosine-binding domain

<220>
<221> misc_feature
<222> (3)...(3)
<223> Xaa can be any amino acid

<400> 27
Asn Pro Xaa Tyr
1